

Amendments to the Claims

1. (Currently amended) A facet implant comprising:
 - a superior implant having an articulating surface that is generally smooth and a fixation surface and being configured for placement on a superior articular facet;
 - an inferior implant having an articulating surface that is generally smooth and a fixation surface and being configured for placement on an inferior articular facet and for interacting with a translaminar fixation mechanism; and
 - a translaminar fixation mechanism for securing the inferior implant to the inferior articular facet;

wherein the generally smooth articulating surface of the inferior implant and the generally smooth articulating surface of the superior implant are each configured to contact the other;

wherein the entire area of the articulating surface of the inferior implant that contacts the articulating surface of the superior implant is generally smooth;

wherein the entire area of the articulating surface of the superior implant that contacts the articulating surface of the inferior implant is generally smooth; and

wherein the articulating surface of the inferior implant and the articulating surface of the superior implant are configured to articulate with the other in multiple directions while in contact with the other.
2. (Previously presented) The facet implant of claim 1 wherein the translaminar fixation mechanism comprises at least one of: a translaminar screw, a bolt or a fixation pin.
3. (Previously presented) The facet implant of claim 2 wherein the inferior implant is configured to interact with the translaminar fixation mechanism such that the translaminar fixation mechanism ranges from about 0 degrees to about 15 degrees offset.
4. (Previously presented) The facet implant of claim 1 wherein at least one of the superior implant or the inferior implant comprises a surface fixation mechanism.

5. (Previously presented) The facet implant of claim 4 wherein the surface fixation mechanism comprises at least one of: one or more pegs, one or more pips, ridges, or one or more screws.

6. (Previously presented) The facet implant of claim 4 wherein the surface fixation mechanism comprises multiple regions wherein each of the regions has at least one ridge oriented in a different direction than the ridges of the other regions.

7. (Previously presented) The facet implant of claim 1 wherein at least one of the fixation surfaces of the inferior implant and the superior implant has at least one of: a porous coating, a porous onlay material, a biologic coating, or a surface treatment.

8. (Previously presented) The facet implant of claim 1 wherein the articulating surface of the superior implant is generally curved.

9. (Previously presented) The facet implant of claim 1 wherein the fixation surface of the superior implant is generally curved.

10. (Previously presented) The facet implant of claim 1 wherein the articulating surface of the inferior implant is generally curved.

11. (Previously presented) The facet implant of claim 1 wherein at least one of the articulating surfaces of the inferior implant and the superior implant is composed of at least one of: cobalt-chromium alloy, ceramic, UHMWPE, pyrolytic carbon, or Ti/Al/V.

12. (Previously presented) The facet implant of claim 1 wherein the inferior implant ranges from about 2 mm thick to about 15 mm thick.

13. (Previously presented) The facet implant of claim 1 wherein the superior implant ranges from about 2 mm thick to about 15 mm thick.

14. (Currently amended) A facet implant comprising:

a superior implant having a fixation surface and a generally curved articulating surface ~~that is generally smooth~~, the superior implant being configured for placement on a resurfaced articulating surface of a superior articular facet; and

an inferior implant having a fixation surface and a generally convex articulating surface ~~that is generally smooth~~, the inferior implant being configured for placement on a resurfaced articulating surface of an inferior articular facet;

wherein the ~~generally smooth~~ articulating surface of the inferior implant and the ~~generally smooth~~ articulating surface of the superior implant are each configured to contact the other:

wherein the entire area of the articulating surface of the inferior implant that contacts the articulating surface of the superior implant is generally smooth;

wherein the entire area of the articulating surface of the superior implant that contacts the articulating surface of the inferior implant is generally smooth; and

wherein the articulating surface of the inferior implant and the articulating surface of the superior implant are configured to articulate with the other in multiple directions while in contact with the other.

15. (Previously presented) The facet implant of claim 14 wherein at least one of the superior implant and the inferior implant comprises a surface fixation mechanism.

16. (Previously presented) The facet implant of claim 15 wherein the surface fixation mechanism comprises at least one of: one or more pegs, one or more pips, ridges, or one or more screws.

17. (Previously presented) The facet implant of claim 15 wherein the surface fixation mechanism comprises multiple regions wherein each of the regions has at least one ridge oriented in a different direction than the ridges of the other regions.

18. (Previously presented) The facet implant of claim 14 wherein at least one of the fixation surfaces of the inferior implant and the superior implant has at least one of: a

porous coating, a porous onlay material, a biologic coating, or a surface treated to facilitate bone ingrowth.

19. (Previously presented) The facet implant of claim 14 wherein at least one of the articulating surfaces of the inferior implant and the superior implant is composed of at least one of: cobalt-chromium alloy, ceramic, UHMWPE, pyrolytic carbon, or Ti/Al/V.

20. (Currently amended) A facet implant comprising:

a superior implant having a fixation surface and a generally curved articulating surface ~~that is generally smooth~~, the superior implant being configured for placement on a resurfaced articulating surface of a superior articular facet;

an inferior implant having a fixation surface and a generally convex articulating surface ~~that is generally smooth~~, the inferior implant being configured for placement on a resurfaced articulating surface of an inferior articular facet and for interacting with a translaminar screw; and

a translaminar screw for securing the inferior implant to the inferior articular facet;

wherein the ~~generally smooth~~ articulating surface of the inferior implant and the ~~generally smooth~~ articulating surface of the superior implant are each configured to contact the other:

wherein the entire area of the articulating surface of the inferior implant that contacts the articulating surface of the superior implant is generally smooth;

wherein the entire area of the articulating surface of the superior implant that contacts the articulating surface of the inferior implant is generally smooth; and

wherein the articulating surface of the inferior implant and the articulating surface of the superior implant are configured to articulate with the other in multiple directions while in contact with the other.

21 – 40. (Canceled).

41. (Currently amended) A facet implant comprising:

superior means for providing an ~~generally smooth~~ artificial articulating surface on a superior articular facet;

inferior means for providing an ~~generally smooth~~ artificial articulating surface on an inferior articular facet that is configured for multiple direction articulation when in contact with the generally smooth artificial articulating surface on the superior articular facet, wherein the entire area of the artificial articulating surface on the superior articular facet that contacts the artificial articulating surface on the inferior articular facet is generally smooth, and wherein the entire area of the artificial articulating surface on the inferior articular facet that contacts the artificial articulating surface on the superior articular facet is generally smooth; and

means for securing the inferior means to the inferior articular facet via a lamina connected to the inferior articular facet.

42. (Previously presented) The facet implant of claim 41 wherein the means for securing the inferior means to the inferior articular facet comprises at least one of: a screw, a bolt or a fixation pin.

43. (Previously presented) The facet implant of claim 41 wherein at least one of the superior means or the inferior means comprises a surface fixation mechanism.

44. (Previously presented) The facet implant of claim 43 wherein the surface fixation mechanism comprises at least one of: one or more pegs, one or more pips, ridges, or one or more screws.

45. (Previously presented) The facet implant of claim 41 wherein at least one of the superior means or the inferior means comprises a fixation surface having at least one of: a porous coating, a porous onlay material, a biologic coating, or a surface treatment.

46. (Previously presented) The facet implant of claim 41 wherein at least one of the superior means or the inferior means comprises an articulating surface composed of at least one of: cobalt-chromium alloy, ceramic, UHMWPE, pyrolytic carbon, or Ti/Al/V.

47. (Currently amended) A facet implant comprising:

superior means for providing ~~an generally smooth~~ artificial articulating surface on a superior articular facet, the superior means having a fixation surface and ~~an generally curved~~ articulating surface, the superior means being configured for placement on a resurfaced articulating surface of a superior articular facet such that the superior means primarily contacts only the articulating surface of the superior articulating facet; and

inferior means for providing ~~an generally smooth~~ artificial articulating surface on an inferior articulating facet that is configured for multiple direction articulation with the ~~generally smooth~~ artificial articulating surface on the superior articular facet, the inferior means having a fixation surface and ~~an generally convex~~ articulating surface, the inferior means being configured for placement on a resurfaced articulating surface of an inferior articular facet such that the inferior means primarily contacts only the articulating surface of the inferior articulating facet;

wherein the generally curved ~~generally smooth~~ artificial articulating surface of the superior ~~means~~ articular facet and the generally convex ~~generally smooth~~ artificial articulating surface of the inferior articular facet ~~means~~ are configured for articulating interaction articulation in multiple directions while the ~~generally smooth~~ artificial articulating surface of the superior articular facet ~~means~~ and the ~~generally smooth~~ artificial articulating surface of the inferior articular facet ~~means~~ contact with one another;

wherein the entire area of the artificial articulating surface on the superior articular facet that contacts the artificial articulating surface on the inferior articular facet is generally smooth; and

wherein the entire area of the artificial articulating surface on the inferior articular facet that contacts the artificial articulating surface on the superior articular facet is generally smooth.

48. (Previously presented) The facet implant of claim 47 wherein at least one of the superior means or the inferior means comprises a surface fixation mechanism.

49. (Previously presented) The facet implant of claim 48 wherein the surface fixation mechanism comprises at least one of: one or more pegs, one or more pips, ridges, or one or more screws.

50. (Previously presented) The facet implant of claim 47 wherein at least one of the superior means or the inferior means comprises a fixation surface having at least one of: a porous coating, a porous onlay material, a biologic coating, or a surface treatment.

51. (Previously presented) The facet implant of claim 47 wherein at least one of the superior means or the inferior means comprises an articulating surface composed of at least one of: cobalt-chromium alloy, ceramic, UHMWPE, pyrolytic carbon, or Ti/Al/V.

52. (Previously presented) The facet implant of claim 47 further comprising means for securing the inferior means to the inferior articular facet via a lamina connected to the inferior articular facet.

53. (Currently amended) A facet implant comprising:

a superior means-implant for providing an generally smooth artificial articulating surface on a superior articular facet, the superior means-implant having a fixation surface and an generally convex articulating surface, the superior means-implant being configured for placement on a specifically prepared articulating surface of a superior articular facet such that the superior means-implant primarily contacts only the articulating surface of the superior articulating facet; and

an inferior means-implant for providing an generally smooth artificial articulating surface on an inferior articulating facet that is configured for multiple direction articulation with the generally smooth artificial articulating surface on the superior articular facet provided by the superior implant, the inferior means having a

fixation surface and an generally curved articulating surface, the inferior means implant being configured for placement on a specifically prepared articulating surface of an inferior articular facet such that the inferior means implant primarily contacts only the articulating surface of the inferior articulating facet;

wherein the generally convex generally smooth articulating surface of the superior means implant and the generally curved generally smooth articulating surface of the inferior means implant are configured for articulation in multiple directions articulating interaction while the generally smooth articulating surface of the superior means implant contacts the generally smooth articulating surface of the inferior means implant;

wherein the entire area of the artificial articulating surface on the superior articular facet that contacts the artificial articulating surface on the inferior articular facet is generally smooth; and

and wherein the entire area of the artificial articulating surface on the inferior articular facet that contacts the artificial articulating surface on the superior articular facet is generally smooth.

54. (Currently amended) The facet implant of claim 53 wherein at least one of the superior means implant or the inferior means implant comprises a surface fixation mechanism.

55. (Previously presented) The facet implant of claim 54 wherein the surface fixation mechanism comprises at least one of: one or more pegs, one or more pips, ridges, or one or more screws.

56. (Currently amended) The facet implant of claim 53 wherein at least one of the superior means implant or the inferior means implant comprises a fixation surface having at least one of: a porous coating, a porous onlay material, a biologic coating, or a surface treatment.

57. (Currently amended) The facet implant of claim 53 wherein at least one of the superior ~~means-implant~~ or the inferior ~~means-implant~~ comprises an articulating surface composed of at least one of: cobalt-chromium alloy, ceramic, UHMWPE, pyrolytic carbon, or Ti/Al/V.

58. (Currently amended) The facet implant of claim 53 further comprising means for securing the inferior ~~means-implant~~ to the inferior articular facet via a lamina connected to the inferior articular facet.

59. (Previously presented) The facet implant of claim 1 wherein the translaminar fixation mechanism is configured to traverse a lamina connected to the inferior articular facet.

60. (Previously presented) The facet implant of claim 14 wherein the inferior implant is configured to engage a translaminar fixation mechanism that traverses a lamina connected to the inferior articular facet.

61. (Previously presented) The facet implant of claim 20 wherein the translaminar fixation mechanism is configured to traverse a lamina connected to the inferior articular facet.

62. Canceled.

63. (Currently amended) A facet implant comprising:

a superior implant having an articulating surface and a fixation surface and being configured for placement on a superior articular facet;

an inferior implant having an articulating surface and a fixation surface and being configured for placement on an inferior articular facet and for interacting with a translaminar fixation mechanism; and

a fixation mechanism adapted to secure the inferior implant to the inferior articular facet by traversing a lamina connected to the inferior articular facet;

wherein the articulating surface of the inferior implant and the articulating surface of the superior implant are adapted to contact the other;

wherein the entire area of the articulating surface of the inferior implant that contacts the articulating surface of the superior implant is generally smooth;

wherein the entire area of the articulating surface of the superior implant that contacts the articulating surface of the inferior implant is generally smooth; and

wherein the articulating surface of the inferior implant and the articulating surface of the superior implant are each configured ~~adapted~~ to articulate with the other in multiple directions while in contact with the other.